

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW030920\  
 Data File : VW015093.D  
 Acq On : 09 Mar 2020 11:02  
 Operator : SY/VA  
 Sample : VSTDIC010  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDIC010

Manual Integrations  
 APPROVED

MMDadoda  
 3/11/2020 3:23:55 PM

Quant Time: Mar 09 18:42:34 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W030920S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Mar 09 18:33:40 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 427535   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 798598   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 711877   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 326814   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 63578    | 10.11 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 20.22% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 46833    | 9.80  | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 19.60% |      |
| 50) Toluene-d8            | 10.32  | 98  | 192630   | 9.62  | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 19.24% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 62517    | 9.40  | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 18.80% |      |

## Target Compounds

|                               |      |     |        |        | Qvalue |      |
|-------------------------------|------|-----|--------|--------|--------|------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 25787  | 9.947  | ug/l   | 91   |
| 3) Chloromethane              | 2.21 | 50  | 59522  | 10.699 | ug/l   | 98   |
| 4) Vinyl Chloride             | 2.36 | 62  | 78269  | 10.747 | ug/l   | 99   |
| 5) Bromomethane               | 2.78 | 94  | 45371  | 10.898 | ug/l   | 96   |
| 6) Chloroethane               | 2.92 | 64  | 44308  | 10.503 | ug/l   | 95   |
| 7) Trichlorofluoromethane     | 3.26 | 101 | 37726  | 10.351 | ug/l   | 98   |
| 8) Diethyl Ether              | 3.68 | 74  | 27522  | 9.910  | ug/l   | 99   |
| 9) 1,1,2-Trichlorotrifluoroet | 4.07 | 101 | 58930  | 10.607 | ug/l   | 97   |
| 10) Methyl Iodide             | 4.28 | 142 | 64487  | 10.433 | ug/l   | 99   |
| 11) Tert butyl alcohol        | 5.17 | 59  | 16931  | 46.864 | ug/l   | 97   |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 55842  | 10.280 | ug/l   | 92   |
| 13) Acrolein                  | 3.90 | 56  | 25841  | 48.906 | ug/l   | 94   |
| 14) Allyl chloride            | 4.67 | 41  | 105002 | 9.646  | ug/l   | 98   |
| 15) Acrylonitrile             | 5.37 | 53  | 67582  | 47.475 | ug/l   | 99   |
| 16) Acetone                   | 4.13 | 43  | 71536  | 49.897 | ug/l   | 93   |
| 17) Carbon Disulfide          | 4.39 | 76  | 199738 | 10.371 | ug/l   | 100  |
| 18) Methyl Acetate            | 4.68 | 43  | 33377  | 9.821  | ug/l   | 99   |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 66600  | 9.577  | ug/l   | 95   |
| 20) Methylene Chloride        | 4.92 | 84  | 74281  | 11.192 | ug/l   | 98   |
| 21) trans-1,2-Dichloroethene  | 5.43 | 96  | 57134  | 9.906  | ug/l   | 97   |
| 22) Diisopropyl ether         | 6.31 | 45  | 202479 | 9.694  | ug/l   | 93   |
| 23) Vinyl Acetate             | 6.26 | 43  | 557517 | 45.215 | ug/l   | 100  |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 126276 | 10.367 | ug/l   | 98   |
| 25) 2-Butanone                | 7.17 | 43  | 92241  | 46.932 | ug/l   | 98   |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 74789  | 10.735 | ug/l   | 99   |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 60025  | 9.997  | ug/l   | 99   |
| 28) Bromochloromethane        | 7.51 | 49  | 61636  | 10.560 | ug/l   | 99   |
| 29) Tetrahydrofuran           | 7.53 | 42  | 55635  | 45.255 | ug/l   | 98   |
| 30) Chloroform                | 7.67 | 83  | 112620 | 10.419 | ug/l   | 99   |
| 31) Cyclohexane               | 7.95 | 56  | 127753 | 10.198 | ug/l   | # 93 |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 86907  | 10.297 | ug/l   | 99   |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 91749  | 9.907  | ug/l   | 98   |
| 37) Ethyl Acetate             | 7.25 | 43  | 42804  | 9.273  | ug/l   | 98   |
| 38) Carbon Tetrachloride      | 8.06 | 117 | 76153  | 10.101 | ug/l   | 97   |

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 VSTDIC010

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 3/11/2020 3:23:55 PM

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W030920S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Mar 09 18:33:40 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 97866    | 9.242   | ug/l  | 99       |
| 40) Benzene                    | 8.32  | 78   | 262628   | 10.204  | ug/l  | 98       |
| 41) Methacrylonitrile          | 7.49  | 41   | 21205    | 8.687   | ug/l  | 98       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 79374    | 10.123  | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.42  | 43   | 76992    | 9.304   | ug/l  | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 55334    | 10.100  | ug/l  | 97       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 69873    | 10.081  | ug/l  | 98       |
| 46) Dibromomethane             | 9.46  | 93   | 30659    | 10.173  | ug/l  | 98       |
| 47) Bromodichloromethane       | 9.64  | 83   | 80096    | 9.954   | ug/l  | 94       |
| 48) Methyl methacrylate        | 9.43  | 41   | 32898    | 8.614   | ug/l  | 97       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 8129     | 176.171 | ug/l  | 92       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 212328   | 46.455  | ug/l  | 99       |
| 52) Toluene                    | 10.38 | 92   | 145256   | 9.824   | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 74402    | 9.399   | ug/l  | 98       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 91699    | 9.509   | ug/l  | 96       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 40970    | 9.921   | ug/l  | 99       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 44891    | 8.425   | ug/l  | 95       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 75199    | 9.565   | ug/l  | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 142414   | 45.551  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.97 | 43   | 120045   | 42.049  | ug/l  | 96       |
| 60) Dibromochloromethane       | 11.13 | 129  | 41670    | 9.770   | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 11.23 | 107  | 35625    | 9.731   | ug/l  | 98       |
| 64) Tetrachloroethene          | 10.86 | 164  | 40701    | 9.907   | ug/l  | 96       |
| 65) Chlorobenzene              | 11.65 | 112  | 142590   | 9.979   | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 47809    | 10.048  | ug/l  | 98       |
| 67) Ethyl Benzene              | 11.73 | 91   | 267319   | 9.614   | ug/l  | 96       |
| 68) m/p-Xylenes                | 11.84 | 106  | 187697   | 19.095  | ug/l  | 100      |
| 69) o-Xylene                   | 12.16 | 106  | 82421    | 9.308   | ug/l  | 99       |
| 70) Styrene                    | 12.18 | 104  | 137963   | 9.093   | ug/l  | 99       |
| 71) Bromoform                  | 12.35 | 173  | 20808    | 9.854   | ug/l  | # 95     |
| 73) Isopropylbenzene           | 12.46 | 105  | 228572   | 9.156   | ug/l  | 99       |
| 74) N-amyl acetate             | 12.27 | 43   | 60889    | 8.253   | ug/l  | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 49067    | 9.679   | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 38212m   | 6.309   | ug/l  |          |
| 77) Bromobenzene               | 12.74 | 156  | 46364    | 9.396   | ug/l  | 95       |
| 78) n-propylbenzene            | 12.80 | 91   | 302383   | 9.320   | ug/l  | 98       |
| 79) 2-Chlorotoluene            | 12.89 | 91   | 171918   | 9.425   | ug/l  | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 201123   | 9.370   | ug/l  | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 14545    | 8.894   | ug/l  | 93       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 189055   | 9.732   | ug/l  | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 157231   | 9.042   | ug/l  | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 201367   | 9.382   | ug/l  | 99       |
| 85) sec-Butylbenzene           | 13.38 | 105  | 244722   | 9.299   | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.49 | 119  | 207344   | 9.166   | ug/l  | 99       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 103484   | 9.898   | ug/l  | 98       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 103845   | 10.087  | ug/l  | 97       |
| 89) n-Butylbenzene             | 13.82 | 91   | 221695   | 9.087   | ug/l  | 97       |
| 90) Hexachloroethane           | 14.09 | 117  | 44697    | 9.852   | ug/l  | 96       |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 90565    | 9.891   | ug/l  | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.48 | 75   | 7565     | 9.293   | ug/l  | 97       |

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 Sample : VSTDICC010  
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 ALS Vial : 4 Sample Multiplier: 1

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W030920S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Mar 09 18:33:40 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.13 | 180  | 47027    | 8.975 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.23 | 225  | 32748    | 9.954 | ug/l  | 98       |
| 95) Naphthalene            | 15.36 | 128  | 75840    | 7.751 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 15.55 | 180  | 43399    | 9.338 | ug/l  | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

